

CLAIMS

1. A method for secure encoding of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding attributes, which determine the data element to encode or decode and the representation of each data element; said element references are arranged relative to each other in a format defined by the template.
2. A method for secure encoding of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template.
3. A method as claimed in claim 1 wherein the element references are spaced apart by one or more literal elements.
4. A method as claimed in claim 2 wherein the element references are spaced apart by one or more literal elements.
5. A method as claimed in claim 3, wherein each template varies in the type of encoding for each data element and the arrangement of element references.
6. A method as claimed in claim 4, wherein each template may vary in the format in which said element references, literal elements, encoding elements and data elements are

arranged and each template may vary in the manner of encoding of the data.

7. A method for secure encoding of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an element reference includes an indication of the data element, the number of characters in the representation of the data element and an indication as to how the representation is formed.
8. A method for secure encoding of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an element reference includes an indication of the data element, the number of characters in the representation of the data element and an indication as to how the representation is formed; wherein a data element is encoded by representing the data in an alternate base.
9. A method for secure encoding of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said

element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an encoded dataset is reduced in size by the use of large numerical bases or re-encoding the data element.

10. A method for secure transmission of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template;
transmitting the encoded data; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding attributes, which determine the data element to encode or decode and the representation of each data element; said element references are arranged relative to each other in a format defined by the template.

11. A method for secure transmission of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template;
transmitting the encoded data; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template.

12. A method as claimed in claim 10 wherein the element references are spaced apart by one or more literal elements.

13. A method as claimed in claim 11 wherein the element references are spaced apart by one or more literal elements.

14. A method as claimed in claim 12, wherein each template varies in the type of encoding for each data element and the arrangement of element references.

15. A method as claimed in claim 13, wherein each template may vary in the format in which said element references, literal elements, encoding elements and data elements are arranged and each template may vary in the manner of encoding of the data.

16. A method for secure transmission of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template;
transmitting the encoded data; and

decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an element reference includes an indication of the data element, the number of characters in the representation of the data element and an indication as to how the representation is formed.

17. A method for secure transmission of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template;
transmitting the encoded data; and

decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an element reference includes an indication of the data element, the number of characters in the representation of the data element and an indication as to how the representation is formed; wherein a data element is encoded by representing the data in an alternate base.

19. A method for secure transmission of data including
constructing a template agreed to for use by sender and receiver;
encoding data with reference to the template;
transmitting the encoded data; and
decoding the data with reference to the template, wherein said template includes one or more element references, said element reference includes encoding elements which describes the encoding of the data and data elements which represents the encoded data; said element references, encoding elements and data elements are arranged relative to each other in a format defined by the template; wherein an encoded dataset is reduced in size by the use of large numerical bases or re-encoding the data element.